

Melick, et al.

Attorney Docket No. P04409US01

Amendments to the Claims

Claim 1 (Previously presented): A method of transmitting data, the method comprising:  
receiving a digital bit of data from a memory unit;  
transforming the bit of data into a transmission pulse, the transmission pulse having a pulse  
characteristic selected from a set of three or more predetermined pulse characteristics, one  
of which is corresponding to the bit of data; and  
transmitting the transmission pulse over a guided medium.

Claim 2 (Previously presented): The method of claim 1 wherein the pulse characteristics  
correspond to numbers 0 through 9.

Claim 3 (Original): The method of claim 1 wherein the data is in the form of universal  
character encoding.

Claim 4 (Previously presented): The method of claim 1 further comprising:  
receiving the transmission pulse from the guided medium; and  
transforming the transmission pulse into a digital bit of data corresponding to the characteristics  
of the transmission pulse.

Claim 5 (Withdrawn): A method of transmitting data over fiber optic cable, the method  
comprising:  
receiving a first digital bit of data from a memory unit;  
receiving a second digital bit of data from a memory unit;  
receiving a third digital bit of data from a memory unit;  
transforming the first bit of data into a transmission pulse of light, the transmission pulse having  
a first pulse duration selected from a set of three or more predetermined pulse durations,  
one of which is corresponding to the first bit of data;  
transforming the third bit of data into a transmission pulse of light, the transmission pulse having  
a third pulse duration selected from a set of three or more predetermined pulse durations,  
one of which is corresponding to the third bit of data;

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determining the transmission time for the second bit of data, the transmission time having a duration selected from a set of three or more predetermined durations, one of which is corresponding to the second bit of data;  
transmitting the first transmission pulse over fiber optic cable;  
postponing the transmission of the third transmission pulse by a time equal to the transmission time for the second bit of data; and  
transmitting the third transmission pulse over fiber optic cable.

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Claim 6 (Withdrawn): The method of claim 5 wherein the transmission pulses represent data in the form of universal character coding.

Claim 7 (Withdrawn): The method of claim 5 wherein the transmission time represents data in the form of universal character coding.

Claim 8 (Withdrawn): The method of claim 5 wherein the transmission time represents data in the form of meta data.

Claim 9 (Withdrawn): A method of transmitting data over fiber optic cable, the method comprising:  
receiving a digital bit of data from a memory unit;  
determining the transmission time for the bit of data, the transmission time having a duration selected from a set of three or more predetermined durations, one of which is corresponding to the bit of data;  
transmitting a first constant duration transmission pulse over fiber optic cable;  
postponing the transmission of a second constant duration transmission pulse by a time equal to the transmission time for the second bit of data; and  
transmitting the second constant duration transmission pulse over fiber optic cable.

Claim 10 (Withdrawn): A method of transmitting data over radio frequencies, the method comprising:

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receiving a digital bit of data from a memory unit;  
determining the transmission time for the bit of data, the transmission time having a duration selected from a set of three or more predetermined durations, one of which is corresponding to the bit of data;  
transmitting a first constant duration transmission pulse from a discharge antenna;  
postponing the transmission of a second constant duration transmission pulse by a time equal to the transmission time for the second bit of data; and  
transmitting the second constant duration transmission from the discharge antenna.

Claim 11 (Withdrawn): A method of transmitting data from a discharge antenna, the method comprising:

receiving a first digital bit of data from a memory unit;  
receiving a second digital bit of data from a memory unit;  
receiving a third digital bit of data from a memory unit;  
transforming the first bit of data into a radio transmission pulse, the transmission pulse having a first pulse duration selected from a set of three or more predetermined pulse durations, one of which is corresponding to the first bit of data;  
transforming the third bit of data into a radio transmission pulse, the transmission pulse having a third pulse duration selected from a set of three or more predetermined pulse durations, one of which is corresponding to the third bit of data;  
determining the transmission time for the second bit of data, the transmission time having a duration selected from a set of three or more predetermined durations, one of which is corresponding to the second bit of data;  
transmitting the first transmission pulse from a discharge antenna;  
postponing the transmission of the third transmission pulse by a time equal to the transmission time for the second bit of data; and  
transmitting the third transmission pulse from a discharge antenna.

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Claim 12 (Withdrawn): The method of claim 11 wherein the transmission pulses represent data in the form of universal character coding.

Claim 13 (Withdrawn): The method of claim 11 wherein the transmission time represents data in the form of universal character coding.

Claim 14 (Withdrawn): The method of claim 11 wherein the transmission time represents data in the form of meta data.

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Claim 15 (Withdrawn): A system for transmitting data corresponding to variable duration pulses, the system comprising:  
a memory unit on which a bit of data is stored;  
a digital/analog converter capable of generating an analog signal corresponding to a variable duration time representing the bit of data, the duration of the variable duration pulse being selected from a list of three or more predetermined transmission pulse durations;  
a trigger generator capable of turning on a switch for a time equal to the variable duration time generating a variable duration pulse; and  
a discharge unit transmitting the variable duration pulse across a transmission medium.

Claim 16 (Withdrawn): The system of claim 15 wherein the transmission medium is fiber optic cable and the variable duration pulse is a pulse of light.

Claim 17 (Withdrawn): The system of claim 15 wherein the transmission medium is air space and the variable duration pulse is a radio signal.

Claim 18 (Withdrawn): The system of claim 15 wherein the bit of data is in the form of universal character coding.

Claim 19 (Original): A method of storing data on a fiber optic cable, the method comprising:

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receiving data in a receiver, the data being in the form of a series of variable duration pulses of light;  
transmitting the variable duration pulses from a transmitter over a fiber optic cable;  
receiving the variable duration pulses in the receiver; and  
repeating the transmission of the variable duration pulses over the fiber optic cable in the direction of the receiver.

Claim 20 (Original): A method of storing data on an optical storage medium, the method comprising:

receiving a data bit for storage;  
determining a duration time corresponding to the data bit, the duration time being selected from a set of three or more duration times,  
creating pits in the optical storage medium by operating a recording laser for a time equal to the duration time corresponding to the data bit.

Claim 21 (Previously presented): A method of transmitting data, comprising:  
receiving at least one digital bit of data from a memory unit;  
transforming the at least one digital bit of data into a transmission pulse, the transmission pulse having a pulse characteristic selected from a set of at least three predetermined pulse characteristics, one of which is corresponding to the bits of data;  
transmitting the transmission pulse.

Claim 22 (Previously presented): The method of claim 21 wherein the transmission pulse is a pulse of light and wherein the step of transmitting is transmitting over fiber optic cable.

Claim 23 (Previously presented): The method of claim 21 wherein the transmission pulse is an electronic pulse and wherein the step of transmitting is transmitting over a guided media.

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Claim 24 (Previously presented): The method of claim 21 wherein the pulse characteristics are pulse durations.

Claim 25 (Previously presented): The method of claim 21 wherein the pulse characteristics are pulse durations, the transmission pulse is a pulse of light and wherein the step of transmitting is transmitting over fiber optic cable.

Claim 26 (Previously presented): The method of claim 21 wherein the pulse characteristic is a pulse position and wherein the transmission pulse is a pulse of light.

Claim 27 (Previously presented): The method of claim 21 wherein the pulse characteristic is a pulse position and wherein the transmission pulse is an electronic pulse and wherein the step of transmitting is transmitting over guided media.

Claim 28 (Previously presented): A method of transmitting data with photonic pulses, the method comprising:  
receiving digital bits of data from a memory unit;  
transforming the bits of data into a transmission pulse of light, the transmission pulse having a pulse position selected from a set of three or more predetermined pulse positions, one of which is corresponding to the bits of data; and  
transmitting the transmission pulse over fiber optic cable.

Claim 29 (Previously presented): The method of claim 28 wherein the pulse positions correspond to a number base higher than 2.

Claim 30 (Previously presented): The method of claim 28 wherein the data is in the form of universal character encoding.

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Claim 31 (Previously presented): The method of claim 28 further comprising:  
receiving the transmission pulse from the fiber optic cable; and  
transforming the transmission pulse into digital bits of data corresponding to the position of the  
transmission pulse.

Claim 32 (Previously Presented): A method of transmitting data over fiber optic cable with  
photonic pulses, the method comprising:  
receiving first digital bits of data from a memory unit;  
receiving second digital bits of data from a memory unit;  
receiving third digital bits of data from a memory unit;  
transforming the first bits of data into a transmission pulse of light, the transmission pulse having  
a first pulse position selected from a set of three or more predetermined pulse positions,  
one of which is corresponding to the first bits of data;  
transforming the third bits of data into a transmission pulse of light, the transmission pulse  
having a third pulse position selected from a set of three or more predetermined pulse  
positions, one of which is corresponding to the third bits of data;  
determining the time of transmission for the second bits of data, the time of transmission having  
a duration selected from a set of three or more predetermined durations, one of which is  
corresponding to the second bits of data;  
transmitting the first transmission pulse over fiber optic cable;  
postponing the transmission of the third transmission pulse by a time equal to the transmission  
time for the second bits of data; and  
transmitting the third transmission pulse over fiber optic cable.

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Claim 33 (Previously presented): The method of claim 32 wherein the transmission pulse  
positions correspond to a number base higher than 2.

Claim 34 (Previously presented): The method of claim 32 wherein the duration between  
transmission pulses correspond to a number base higher than 2.

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Claim 35 (Previously presented): The method of claim 32 wherein the transmission pulse positions represent data in the form of universal character coding.

Claim 36 (Previously presented): The method of claim 32 wherein the duration between transmission pulses represents data in the form of universal character coding.

Claim 37 (Previously presented): The method of claim 32 wherein the duration between transmission pulses represents data in the form of meta data.

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Claim 38 (Previously presented): A method of transmitting data with electronic pulses, the method comprising:  
receiving digital bits of data from a memory unit;  
transforming the bits of data into a transmission pulse of electrical energy, the transmission pulse having a pulse characteristic selected from a set of three or more predetermined pulse characteristics, one of which is corresponding to the bits of data; and  
transmitting the transmission pulse over a transmission medium.

Claim 39 (Previously presented): The method of claim 38 wherein the transmission pulse characteristics corresponding to the bits of data is the transmission pulses position in time.

Claim 40 (Previously presented): The method of claim 38 wherein the transmission pulse characteristics corresponding to the bits of data is the duration between transmission pulses.

Claim 41 (Previously presented): The method of claim 38 wherein the transmission pulse characteristics corresponding to the bits of data is the amplitude of the transmission pulse.



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Claim 42 (Previously presented): The method of claim 38 wherein the transmission pulse characteristics corresponding to the bits of data is the duration of the transmission pulse.

Claim 43 (Previously presented): The method of claim 38 wherein the transmission pulse characteristics corresponding to the bits of data is the phase of the transmission pulse.

Claim 44 (Previously presented): The method of claim 38 wherein the transmission pulse characteristics correspond to a number base higher than 2.

Claim 45 (Previously presented): The method of claim 38 wherein the data is in the form of universal character encoding.

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Claim 46 (Previously presented): The method of claim 38 further comprising:  
receiving the transmission pulse from the transmission medium; and  
transforming the transmission pulse into a digital bits of data corresponding to the specific characteristics of the transmission pulse.

Claim 47 (Previously presented): A method of transmitting data with electronic pulses, the method comprising:  
receiving digital bits of data from a memory unit;  
transforming the bits of data into a transmission pulse of electrical energy, the transmission pulse having a pulse position selected from a set of three or more predetermined pulse positions, one of which is corresponding to the bits of data; and  
transmitting the transmission pulse over a transmission medium.

Claim 48 (Previously presented): The method of claim 47 wherein the transmission pulse positions correspond to a number base higher than 2.

Claim 49 (Previously presented): The method of claim 47 wherein the data is in the form of universal character encoding.

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Claim 50 (Previously presented): The method of claim 47 further comprising:  
receiving the transmission pulse from the transmission medium; and  
transforming the transmission pulse into a digital bits of data corresponding to the position of the  
transmission pulse.

Claim 51 (Previously presented): A method of transmitting data over the transmission  
medium, the method comprising:  
receiving first digital bits of data from a memory unit;  
receiving second digital bits of data from a memory unit;  
receiving third digital bits of data from a memory unit;  
transforming the first bits of data into a transmission pulse of electrical energy, the transmission  
pulse having a first pulse position selected from a set of three or more predetermined  
pulse positions, one of which is corresponding to the first bits of data;  
transforming the third bits of data into a transmission pulse of electrical energy, the transmission  
pulse having a third pulse position selected from a set of three or more predetermined  
pulse positions, one of which is corresponding to the third bits of data;  
determining the time of transmission for the second bit of data, the time of transmission having a  
duration selected from a set of three or more predetermined durations, one of which is  
corresponding to the second bits of data;  
transmitting the first transmission pulse over a transmission medium;  
postponing the transmission of the third transmission pulse by a time equal to the transmission  
time for the second bits of data; and  
transmitting the third transmission pulse over a transmission medium.

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Claim 52 (Previously presented): The method of claim 51 wherein the transmission pulse  
positions correspond to a number base higher than 2.

Claim 53 (Previously presented): The method of claim 51 wherein the duration between  
transmission pulses correspond to a number base higher than 2.

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Claim 54 (Previously presented): The method of claim 51 wherein the transmission pulses represent data in the form of universal character coding.

Claim 55 (Previously presented): The method of claim 51 wherein the transmission time represents data in the form of universal character coding.

Claim 56 (Previously presented): The method of claim 51 wherein the transmission time represents data in the form of meta data.

Claim 57 (Previously presented): A method of storing data on a transmission medium, the method comprising:

receiving data in a receiver, the data being in the form of a series of variable characteristic

transmission pulses;

transmitting the variable characteristic transmission pulses from a transmitter over a transmission medium;

receiving the variable characteristic transmission pulses in the receiver; and

repeating the transmission of the variable characteristic pulses over the transmission medium in the direction of the receiver.